APPENDIX B
GROUNDWATER MONITORING GUIDELINES

The Onsite Sanitary Official may require a groundwater level monitoring program as part of the site evaluation process to ensure adequate separation between the bottom of the disposal trenches and the water table. Monitoring shall be done at a time of the year when the highest seasonal groundwater table occurs. Some sites are subject to significant year to year fluctuations in the highest seasonal groundwater table.

Sites to be monitored shall be carefully checked for groundwater drainage tile and open ditches that may have altered natural seasonal groundwater table. Where such factors are involved, information on the location, design, ownership and maintenance responsibilities for such groundwater drainage systems shall be provided. Documentation shall be provided to show that the groundwater drainage network has an adequate outlet and will be maintained.

The Onsite Sanitary Official shall witness the excavation and installation of the piezometers. The Onsite Sanitary Official may require a maximum of fifteen days prior to written notice for the purpose of witnessing the location and installation. The Town may waive the witnessing requirements. Failure of the Town personnel to be present when fifteen days prior written notice shall be construed to be a waiver of witnessing requirements. The tubes shall be installed where possible with an auger rather than a backhoe. Larger backhoe pits give a false high reading in fine textured soils. Illustrations of typical piezometer installations are shown in Figures B.1 and B.2.

Installation shall be made on or before November 1. Groundwater level observations shall be made thereafter every fourteen days or less until April 1, or until the site is determined by the Onsite Sanitary Official to be unacceptable, whichever comes first.

When monitoring discloses that a site is acceptable, data giving test locations, ground elevations at the monitoring wells, soil profile descriptions, dates observed, depths to observed water tables and soil water temperatures for those dates as well as supporting data indicating that monthly precipitation amounts (see Table B-1) are within the normal range shall be submitted to the Onsite Sanitary Official in a written report.

TITLE B-1

TEN YEAR RAINFALL FOR BUTTE COUNTY
INTENSITY IN INCHES PER HOUR

Mean Annual Rainfall	One Day	Twelve Hours	Six Hours	Three Hours	Two Hours	Sixty Min.	Thirty Min.	Fifteen Min.	Ten Min.	Five Min.
16	0.08	0.13	0.17	0.24	0.30	0.44	0.58	0.83	1.02	1.39
18	0.09	0.14	0.20	0.27	0.34	0.50	0.66	0.93	1.15	1.56
20	0.10	0.16	0.22	0.31	0.37	0.55	0.73	1.03	1.27	1.74
22	0.11	0.17	0.24	0.34	0.41	0.61	0.80	1.14	1.40	1.91
24	0.12	0.19	0.26	0.37	0.45	0.67	0.87	1.24	1.53	2.08
26	0.13	0.20	0.28	0.40	0.49	0.72	0.95	1.34	1.66	2.26
28	0.14	0.22	0.30	0.43	0.52	0.78	1.02	1.45	1.78	2.43
30	0.15	0.24	0.33	0.46	0.56	0.83	1.09	1.55	1.91	2.61
32	0.16	0.25	0.35	0.49	0.60	0.89	1.17	1.65	2.04	2.78
34	0.17	0.27	0.37	0.52	0.64	0.94	1.24	1.76	2.17	2.95
36	0.18	0.28	0.39	0.55	0.67	1.00	1.31	1.86	2.29	3.13
38	0.19	0.30	0.41	0.58	0.71	1.05	1.38	1.96	2.42	3.30
40	0.20	0.31	0.43	0.61	0.75	1.11	1.46	2.06	2.55	3.47
42	0.21	0.33	0.46	0.64	0.79	1.17	1.53	2.17	2.67	3.65
44	0.22	0.34	0.48	0.67	0.82	1.22	1.60	2.27	2.80	3.82
46	0.23	0.36	0.50	0.70	0.86	1.28	1.68	2.37	2.93	3.99
48	0.24	0.38	0.52	0.73	0.90	1.33	1.75	2.48	3.06	4.17
50*	0.25	0.39	0.54	0.76	0.93	1.39	1.82	2.58	3.18	4.34
52	0.26	0.41	0.56	0.79	0.97	1.44	1.89	2.68	3.31	4.52
54	0.27	0.42	0.59	0.82	1.01	1.50	1.97	2.79	3.44	4.69
56	0.28	0.44	0.61	0.86	1.05	1.55	2.04	2.89	3.57	4.86
58	0.29	0.45	0.63	0.89	1.08	1.61	2.11	2.99	3.69	5.04
60	0.30	0.47	0.65	0.92	1.12	1.66	2.19	3.10	3.82	5.21
62	0.31	0.49	0.67	0.95	1.16	1.72	2.26	3.20	3.95	5.38
64	0.32	0.50	0.69	0.98	1.20	1.78	2.33	3.30	4.08	5.56

Mean Annual Rainfall	One Day	Twelve Hours	Six Hours	Three Hours	Two Hours	Sixty Min.	Thirty Min.	Fifteen Min.	Ten Min.	Five Min.
66	0.33	0.52	0.72	1.01	1.23	1.83	2.40	3.41	4.20	5.73
68	0.34	0.53	0.74	1.04	1.27	1.89	2.48	3.51	4.33	5.91
70	0.35	0.55	0.76	1.07	1.31	1.94	2.55	3.61	4.46	6.08
72	0.36	0.56	0.78	1.10	1.35	2.00	2.62	3.72	4.59	6.25
74	0.37	0.58	0.80	1.13	1.38	2.05	2.70	3.82	4.71	6.43
76	0.38	0.60	0.82	1.16	1.42	2.11	2.77	3.92	4.84	6.60
78	0.38	0.60	0.83	1.17	1.43	2.13	2.79	3.95	4.88	6.65
80	0.39	0.62	0.85	1.20	1.47	2.18	2.86	4.06	5.00	6.82
82	0.40	0.63	0.87	1.23	1.51	2.23	2.93	4.16	5.13	6.99
84	0.41	0.65	0.90	1.26	1.54	2.29	3.00	4.26	5.25	7.16
86	0.42	0.66	0.92	1.29	1.58	2.34	3.08	4.36	5.38	7.33
88	0.43	0.68	0.94	1.32	1.62	2.40	3.15	4.46	5.50	7.51
90	0.44	0.69	0.96	1.35	1.65	2.45	3.22	4.56	5.63	7.68

* PARADISE STATISTICS

The normal annual precipitation varies from approximately thirty-two inches at the lower elevations of the town limits to approximately sixty-four inches at the higher elevations. This rainfall is concentrated mainly in the months of December, January and February with storms of generally smaller intensity occurring in October, November, March and April. Precipitation is generally in the form of rainfall with only one or two significant snowfalls per year.

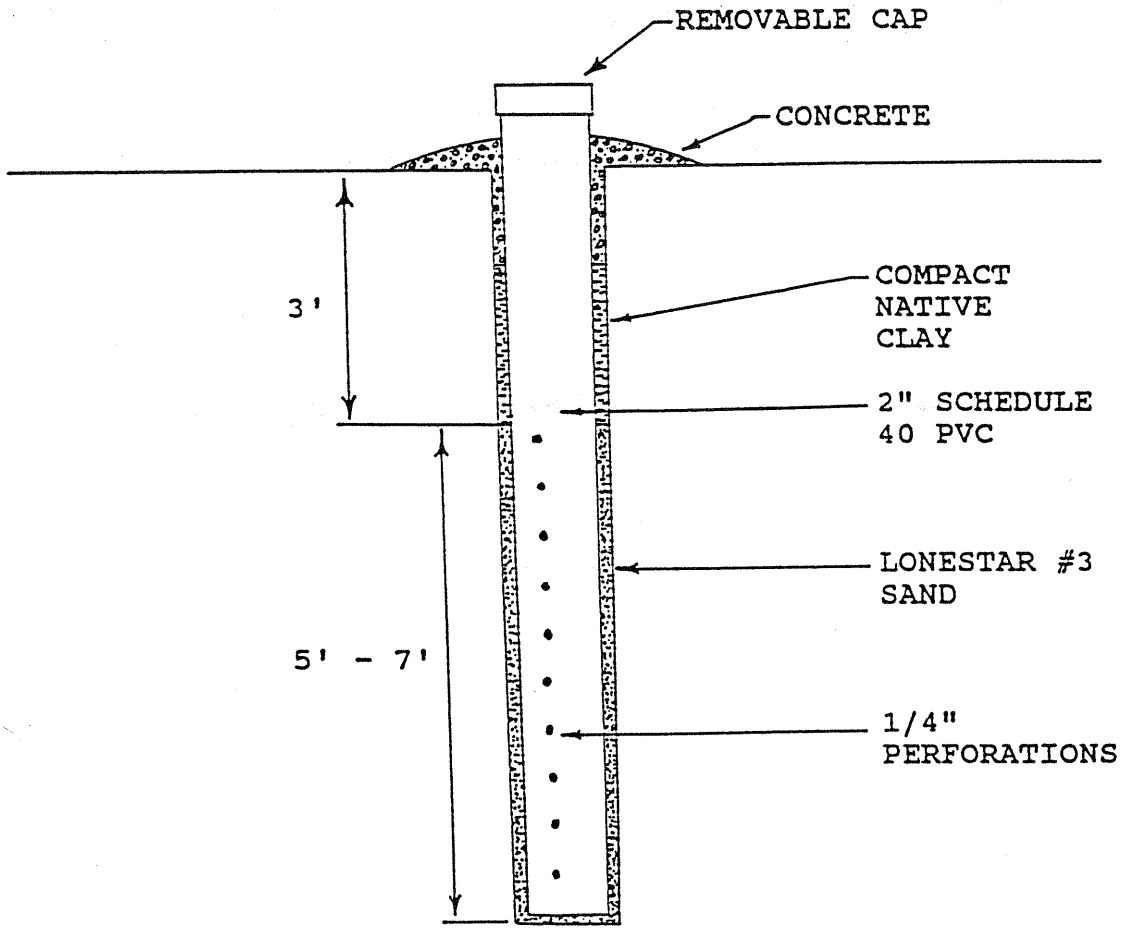

FIGURE B.1

PIEZOMETER FOR MEASURING SHALLOW GROUNDWATER IN SOILS WITHOUT A RESTRICTIVE HORIZON IN TOP THREE FEET. FOR THOSE SOILS WITH A SUSPECTED RESTRICTIVE LAYER, A SHALLOW MONITORING WELL WILL ALSO BE REQUIRED. SEE FIGURE B.2

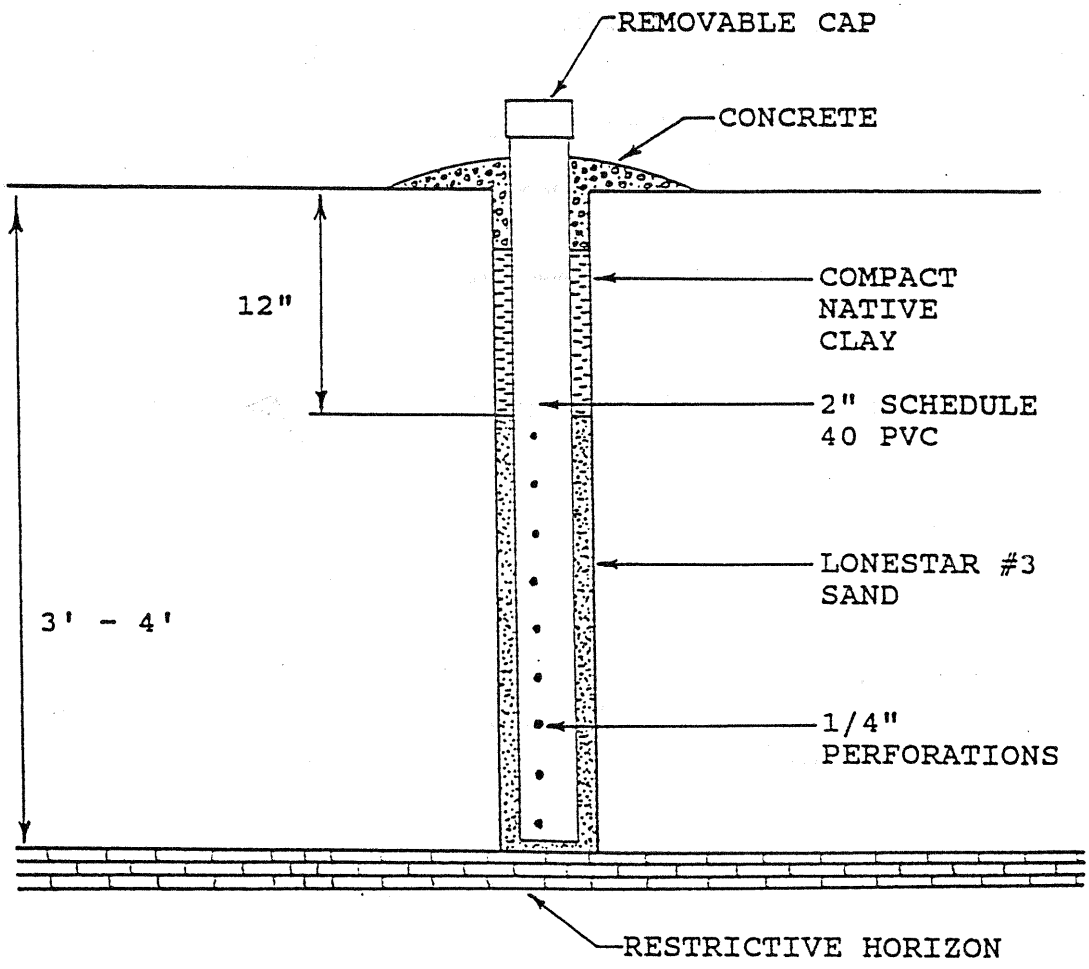

FIGURE B.2

PIEZOMETER FOR WATER TABLES ABOVE SHALLOW RESTRICTIVE LAYERS